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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,897	12/03/2001	Yoshikazu Kanazawa	122.1439CIP	6294

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EXAMINER

SAID, MANSOUR M

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.		Applicant(s)	
	09/998,897		KANAZAWA ET AL.	
	Examiner		Art Unit	
	MANSOUR M SAID		2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2001.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,6,7,10-15 and 17-31 is/are rejected.
- 7) ☒ Claim(s) 2,4,5,8,9 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5,6,7</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

- 1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:**

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- 2. Claim 13 is rejected under 35 U.S.C. 102(e) as being anticipated by Kanazawa et al. (6,603,446 B1; hereinafter referred to as Kanazawa).**

Kanazawa teaches a method of driving a plasma display panel (PDP, (figure 1)) having a plurality of first electrodes (column 4, lines 1-2), a plurality of second electrodes adjacently disposed alternately (column 4, lines 1-2), and a plurality of third electrodes formed to cross said first and second electrodes (column 4, lines 1-4), wherein the first electrodes (X electrode, (column 7, lines 55-60)) and the second electrodes (Y electrodes, (column 7, lines 55-60)) are divided into an odd electrode group and an even electrode group ( column 7, lines 55-67), and each adjacent odd electrode of said odd electrode group and each adjacent even electrode of said even electrode group or each adjacent odd and even electrode constitutes a display line (column 7, lines 55-67 and column 8, lines 1-4); a plurality of discharges of an initial stage of a sustain discharge period are oppositely carried out by each adjacent odd electrode or each adjacent even electrode (column 8, lines 1-4); and one or both voltages of said first electrodes (X electrodes) and second electrodes (Y electrodes) where the sustain discharge is not carried out (enabling) are set low (column 7, lines 25-43).

*Claim Rejections - 35 USC § 103*

**3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**4. Claims 1, 3, 6-7, 15, 17, 19 and 21-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hong (6,392,344) in view of Masuda et al. (6,404,411; hereinafter referred to as Masuda).**

As to claim 1, Hong teaches a method of driving a plasma display panel (figures 2 and 5) having a plurality of first electrodes (first electrodes, (figure 2, (23x)), a plurality of second electrodes (second electrode, (figure 2, (23y)) adjacently disposed alternately, and a plurality of third electrodes (third electrode, (figure 2, (23A)) formed to cross said first and second electrodes (abstract; (column 1, lines 19-30; and column 3, lines 5-15), comprising the steps of carrying out an address discharge between said second electrodes and said third electrodes (third electrode is an address electrode (column 1, lines 23-26; column 1, lines 42-65; column 3, lines 1-16 and column 3, lines 45-57).

Hong does not expressly disclose that carrying out an auxiliary discharge to decrease the volume of wall charges, accumulated on a display cell in which a sustain discharge is not intended, to a level which cannot generate a sustain discharge; and carrying out a sustain discharge by alternately applying sustain pulses to said first and second electrodes.

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However, Masuda teaches that carrying out an auxiliary discharge to decrease the volume of wall charges, accumulated on a display cell in which a sustain discharge is not intended, to a level which cannot generate a sustain discharge (column 9, lines 50-67, column 10, lines 1-6); and carrying out a sustain discharge by alternately applying sustain pulses to said first and second electrodes (column 7, lines 1-10 and column 10, lines 1-21).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Masuda's teaching into Hong's plasma device so as to provide display technique for preventing deterioration of contrast by preventing erroneous discharge due to impression of scan pulse (column 53-60).

**As to claim 3**, Hong teaches all claimed limitation in claim 3, but omit that the auxiliary discharge is equivalent to a voltage of an address pulse for carrying out an address discharge.

However, Masuda fairly teaches that the auxiliary discharge is equivalent to a voltage of an address pulse for carrying out an address discharge (abstract and column 9, lines 1-26).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Masuda's teaching into Hong's plasma device so as to provide display technique for preventing deterioration of contrast by preventing erroneous discharge due to impression of scan pulse (column 53-60).

**As to claim 6**, Hong (figure 2) teaches that first electrodes (23 X) and the second electrodes (23Y) are disposed in parallel alternately, and the third electrodes (23A) are orthogonal with the first (23X) and second electrodes (23Y) (column 3, lines 5-29).

**As to claim 7**, Hong teaches that applying a voltage pulse having the same polarity as a voltage pulse for carrying out the address discharge between the second electrodes (second

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electrode, (figure 13, (13y), (figure 1 shows that 1<sup>st</sup> electrode & 2<sup>nd</sup> electrode are in parallel to each other, so that the two electrodes (1<sup>st</sup> & 2<sup>nd</sup>) having the same polarity voltage pulse) and the third electrodes (column 1, lines 44-55).

Hong does not expressly teach that carrying out an auxiliary discharge to decrease the volume of wall charges, accumulated on a display cell in which a sustain discharge is not intended with out carrying out the address discharge

However, Masuda teaches that carrying out an auxiliary discharge to decrease the volume of wall charges accumulated on a display cell in which a sustain discharge is not intended with out carrying out the address discharge (column 9, lines 50-67, column 10, lines 1-6).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Masuda's teaching into Hong's plasma device so as to provide display technique for preventing deterioration of contrast by preventing erroneous discharge due to impression of scan pulse (column 53-60).

**As to claim 15**, Hong teaches a method of driving a plasma display panel (figures 2 and 5) having a plurality of first electrodes (first electrodes, (figure 2, (23x)), a plurality of second electrodes (second electrode, (figure 2, (23y)) disposed adjacently and alternately (abstract; (column 1, lines 19-30; and column 3, lines 5-15), and a plurality of third electrodes (third electrode, (figure 2, (23A)) formed to cross said first and second electrodes (abstract; (column 1, lines 19-30; and column 3, lines 5-15), comprising the steps of carrying out an address discharge between said second electrodes and said third electrodes (third electrode is an address electrode (column 1, lines 23-26; column 1, lines 42-65; column 3, lines 1-16 and column 3, lines 45-57).

Hong does not expressly disclose that carrying out a sustain discharge by alternately applying sustain pulses to the first and second electrodes; and carrying out an auxiliary discharge of a scale larger than the scale of the sustain discharge carried out immediately before.

However, Masuda teaches that carrying out a sustain discharge by alternately applying sustain pulses to said first and second electrodes (column 7, lines 1-10 and column 10, lines 1-21), and carrying out an auxiliary discharge of a scale larger than the scale of the sustain discharge carried out immediately before (column 9, line 64 through column 10, line 5).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Masuda's teaching into Hong's plasma device so as to provide display technique for preventing deterioration of contrast by preventing erroneous discharge due to impression of scan pulse (column 53-60).

**As to claim 17**, Hong teaches fairly teach all claimed limitations except that the auxiliary discharge is equivalent to a voltage to a voltage of an address pulse for carrying an address discharge.

However, Masuda teaches the auxiliary discharge is equivalent to a voltage to a voltage of an address pulse for carrying an address discharge (abstract and column 9, lines 1-26).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Masuda's teaching into Hong's plasma device so as to provide display technique for preventing deterioration of contrast by preventing erroneous discharge due to impression of scan pulse (column 53-60).

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**As to claims 19 and 21**, Hong teaches all claimed limitation in claim 15, but omit that the auxiliary discharge is equivalent to a voltage of an address pulse for carrying out an address discharge.

However, Masuda fairly teaches that the auxiliary discharge is equivalent to a voltage of an address pulse for carrying out an address discharge (abstract and column 9, lines 1-26).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Masuda's teaching into Hong's plasma device so as to provide display technique for preventing deterioration of contrast by preventing erroneous discharge due to impression of scan pulse (column 53-60).

**As to claim 22**, Masuda teaches that the auxiliary discharge is carried out once in a plurality of sub fields (column 12, lines 4-13 and column 14, lines 10-15).

**As to claim 23**, Masuda teaches that the auxiliary discharge is carried out once in one frame or in one field (column 12, lines 4-13 and column 14, lines 10-15).

**As to claim 24**, Hong (figure 2) teaches that first electrodes (23 X) and the second electrodes (23Y) are disposed in parallel alternately, and the third electrodes (23A) are orthogonal with the first (23X) and second electrodes (23Y) (column 3, lines 5-29).

**As to claim 25**, Hong teaches a method of driving a plasma display panel (figures 2 and 5) having a plurality of first electrodes (first electrodes, (figure 2, (23x)), a plurality of second electrodes (second electrode, (figure 2, (23y)) adjacently disposed alternately, and a plurality of third electrodes (third electrode, (figure 2, (23A)) formed to cross said first and second electrodes (abstract; (column 1, lines 19-30; and column 3, lines 5-15), comprising the steps of carrying out an address discharge between said second electrodes and said third electrodes (third electrode is



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an address electrode (column 1, lines 23-26; column 1, lines 42-65; column 3, lines 1-16 and column 3, lines 45-57).

Hong does not expressly disclose that rapidly changing a pulse voltage until when the pulse becomes equivalent to a voltage of the scan pulse, at an end stage of the erasing pulse.

However, Masuda teaches that steeply changing a pulse voltage until when the pulse becomes equivalent to a voltage of the scan pulse, at an end stage of the erasing pulse (column 12, lines 50-61).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Masuda's teaching into Hong's plasma device so as to provide display technique for preventing deterioration of contrast by preventing erroneous discharge due to impression of scan pulse (column 53-60).

**As to claim 26**, Hong teaches that first electrodes (figure 2, (23 X)) and the second electrodes (23Y) are disposed in parallel alternately, and the third electrodes ((figure 2, (23A)) are orthogonal with the first electrode (figure 2, (23X)) and second electrodes (figure 2, (23Y)) (column 3, lines 5-29).

**As to claim 27**, Hong teaches a method of driving a plasma display panel (figures 2 and 5) having a plurality of first electrodes (first electrodes, (figure 2, (23x)), a plurality of second electrodes (second electrode, (figure 2, (23y)) adjacently disposed alternately, and a plurality of third electrodes (third electrode, (figure 2, (23A)) formed to cross said first and second electrodes (abstract; (column 1, lines 19-30; and column 3, lines 5-15), comprising the steps of carrying out an address discharge between said second electrodes and said third electrodes (third electrode is

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an address electrode (column 1, lines 23-26; column 1, lines 42-65; column 3, lines 1-16 and column 3, lines 45-57)

Hong does not expressly disclose that carrying out a sustain discharge by alternately applying sustain pulses to said first and second electrodes, wherein an auxiliary discharge is carried out between said first electrodes and said third electrodes, during the address discharge and the sustain discharge.

However, Masuda teaches that carrying out a sustain discharge by alternately applying sustain pulses to said first and second electrodes (column 9, line 50 through column 10, line 6), wherein an auxiliary discharge is carried out between said first electrodes and said third electrodes, during the address discharge and the sustain discharge (column 9, lines 64 through column 10, line 6).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Masuda's teaching into Hong's plasma device so as to provide display technique for preventing deterioration of contrast by preventing erroneous discharge due to impression of scan pulse (column 53-60).

**As to claim 28**, Hong teaches a method of driving a plasma display panel (figures 2 and 5) having a plurality of first electrodes (first electrodes, (figure 2, (23x))), a plurality of second electrodes (second electrode, (figure 2, (23y))) adjacently disposed alternately, and a plurality of third electrodes (third electrode, (figure 2, (23A))) formed to cross said first and second electrodes (abstract; (column 1, lines 19-30; and column 3, lines 5-15), comprising the steps of carrying out an address discharge between said second electrodes and said third electrodes (third electrode is

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an address electrode (column 1, lines 23-26; column 1, lines 42-65; column 3, lines 1-16 and column 3, lines 45-57).

Hong does not expressly disclose that carrying out an auxiliary discharge to decrease the volume of wall charges, accumulated on a display cell in which a sustain discharge is not intended, to a level which cannot generate a sustain discharge.

However, Masuda teaches that carrying out an auxiliary discharge to decrease the volume of wall charges, accumulated on a display cell in which a sustain discharge is not intended, to a level which cannot generate a sustain discharge (column 9, lines 50-67, column 10, lines 1-6).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Masuda's teaching into Hong's plasma device so as to provide display technique for preventing deterioration of contrast by preventing erroneous discharge due to impression of scan pulse (column 53-60).

**As to claim 29**, Hong teaches that first electrodes (figure 2, (23 X)) and the second electrodes (figure 2, (23Y)) are disposed alternately in parallel, and the third electrodes (figure 2, (23A)) are orthogonal with the first (figure 2, (23X)) and second electrodes (figure 2, (23Y)) (column 3, lines 5-29).

**As to claim 30**, Hong teaches a method of driving a plasma display panel (figures 2 and 5) having a plurality of first electrodes (first electrodes, (figure 2, (23x))), a plurality of second electrodes (second electrode, (figure 2, (23y))) adjacently disposed alternately, and a plurality of third electrodes (third electrode, (figure 2, (23A))) formed to cross said first and second electrodes (abstract; (column 1, lines 19-30; and column 3, lines 5-15), comprising the steps of carrying out an address discharge between said second electrodes and said third electrodes (third electrode is

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an address electrode (column 1, lines 23-26; column 1, lines 42-65; column 3, lines 1-16 and column 3, lines 45-57)

Hong does not expressly disclose that carrying out a sustain discharge by alternately applying sustain pulses to the first and second electrodes; and carrying out an auxiliary discharge of a scale larger than the scale of the sustain discharge carried out immediately before.

However, Masuda teaches that carrying out a sustain discharge by alternately applying sustain pulses to said first and second electrodes (column 7, lines 1-10 and column 10, lines 1-21), and carrying out an auxiliary discharge of a scale larger than the scale of the sustain discharge carried out immediately before (column 9, line 64 through column 10, line 5).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Masuda's teaching into Hong's plasma device so as to provide display technique for preventing deterioration of contrast by preventing erroneous discharge due to impression of scan pulse (column 53-60).

As to claim 31, Hong teaches that first electrodes (figure 2, (23 X)) and the second electrodes (figure 2, (23Y)) are disposed alternately in parallel, and the third electrodes (figure 2, (23A)) are orthogonal with the first (figure 2, (23X)) and second electrodes (figure 2, (23Y)) (column 3, lines 5-29).

**5. Claim 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa et al. (6,140,984; hereinafter referred to as Kanazawa) in view of Masuda et al. (6,404,411; hereinafter referred to as Masuda).**

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As to claim 10, Kanazawa discloses wherein electrodes are oppositely driven into an odd electrode group and an even electrode group in temporal (column 17, lines 1-8); and after finishing an address period of one of the odd and even electrode groups, a voltage of any of the second electrodes finishing an address process is set lower than a non-selection voltage of said second electrode when carrying out the address process (figure 15, abstract; column 14, lines 45-67; column 17, lines 1-8; column 17, lines 60-67; and column 18, lines 1-8); further comprising the steps of: applying a voltage pulse having the same polarity as a voltage pulse for carrying out the address discharge on the second electrodes (column 7, lines 25-33 ; column 8, lines 40-46 and column 19, lines 34-40) and having the same or a higher voltage than that of a scan pulse (column 4, lines 14-19; column 7, lines 25-33 and column 15, lines 37-42).

Kanazawa does not expressly disclose that carrying out an auxiliary discharge to decrease the volume of wall charges, accumulated on a display cell in which a sustain discharge is not intended, to a level which cannot generate a sustain discharge.

However, Masuda teaches that carrying out an auxiliary discharge to decrease the volume of wall charges, accumulated on a display cell in which a sustain discharge is not intended, to a level which cannot generate a sustain discharge (column 9, lines 50-67, column 10, lines 1-6).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Masuda's teaching into Kanazawa's plasma device so as to provide display technique for preventing deterioration of contrast by preventing erroneous discharge due to impression of scan pulse (column 53-60).

As to claim 11, Kanazawa teaches fairly teach all claimed limitations except that the auxiliary discharge is equivalent to a voltage to a voltage of an address pulse for carrying an address discharge.

However, Masuda teaches the auxiliary discharge is equivalent to a voltage to a voltage of an address pulse for carrying an address discharge (abstract and column 9, lines 1-26).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Masuda's teaching into Kanazawa's plasma device so as to provide display technique for preventing deterioration of contrast by preventing erroneous discharge due to impression of scan pulse (column 53-60).

**6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hong in view of Kanazawa et al. (6,140,984; hereinafter referred to as Kanazawa).**

As to claim 12, Hong teaches a method of driving a plasma display panel (PDP, (figure 2) having a plurality of first electrodes (first electrode, (figure 2, (23X)), a plurality of second electrodes (second electrode, (figure 2, (23Y)) disposed adjacently and alternately (column 3, lines 10-15 and column 3, lines 46-56), and a plurality of third electrodes (third electrode, (figure 2, (23A)) formed to cross the first (first electrode, (figure 2, (23X)) and second electrodes (second electrode, (figure 2, (23Y)) (column 3, lines 10-15).

Hong does not expressly discloses wherein electrodes are oppositely driven into an odd electrode group and an even electrode group in temporal; and after finishing an address period of one of the odd and even electrode groups, a voltage of any of the second electrodes finishing an

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address process is set lower than a non-selection voltage of said second electrode when carrying out the address process.

However, Kanazawa fairly discloses wherein electrodes are oppositely driven into an odd electrode group and an even electrode group in temporal (column 17, lines 1-8); and after finishing an address period of one of the odd and even electrode groups, a voltage of any of the second electrodes finishing an address process is set lower than a non-selection voltage of said second electrode when carrying out the address process (figure 15, abstract; column 14, lines 45-67; column 17, lines 1-8; column 17, lines 60-67 and column 18, lines 1-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Kanazawa's teaching into Hong's system so as to provide a high-brightness, high resolution plasma display (column 8, lines 27-30).

**7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa et al. (6,603,446 B1; hereinafter referred to as Kanazawa) in view of Kanazawa et al. (6,288,692 B1; hereinafter referred to as Kanazawa).**

**As to claim 14,** Kanazawa (6,603,446 B1) teaches all claimed limitations except that bringing a driving circuit for the electrode into a high impedance state.

However, Kanazawa (6,288,692 B1) teaches wherein bringing a driving circuit for the electrode into a high impedance state (column 3, lines 7-11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Kanazawa's (6,288,692 B1) having an electrode with a high

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impedance into Kanazawa's (6,603,446 B1) so as that the incorrect discharge will not occur (column 3, lines 11-14).

**8. Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hong in view of Masuda as applied to claim 15 above, and further in view of Kim et al. (6,208,092 B1; hereinafter referred to as Kim).**

As to claims 18 and 20, Hong and Masuda disclose all claimed limitations in claim 10 except that auxiliary discharge has a polarity opposite to the polarity of the potentials of the electrodes.

However, Kim teaches that auxiliary discharge has a polarity opposite to the polarity of the potentials of the electrodes (column 3, lines 10-30, column 6, lines 52-57, column 14, lines 25-36).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to combine Kim's teaching into Hong's modified system so as to improve the luminance (abstract).

*Allowable Subject Matter*

**9. Claims 2, 4-5, 8-9 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**



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*Conclusion*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Park et al. (6,262,532) disclose a plasma display device with electrically floated auxiliary electrodes.

Kim et al. (6,262,532 B1) teaches a plasma display device with plurality electrodes.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Mansour M. Said** whose telephone number is **(703) 306-5411**.

The examiner can normally be reached on Monday through Thursday from 8:30 a.m. to 6:00 p.m. The examiner can also be reached on alternate Friday from 8:30 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Shalwala Bipin**, can be reached at **(703) 305-4938**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington, VA, Sixth Floor (Receptionist)

12. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer service Office

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whose telephone number is (703) 306-0377.

March 6, 2004

**Mansour M. Said**



**BIPIN SHALWALA**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**